

U. S. Application No. 10/717,26
 Attorney Docket No. 2002B171/2
 Reply to Office Action of July 14, 2006
 Amendment dated October 10, 2006

RECEIVED
 CENTRAL FAX CENTER
 JAN 09 2007

AMENDMENTS TO THE DETAILED DESCRIPTION

Please amend the specification as follows:

Please replace paragraph [0064] on page 13 of the application as filed with the following replacement paragraph:

[0064] In one or more of the processes described herein, the metallocene includes a dimethylanilinium tetrakis (perfluorophyl) boron activator. Alternatively, the supported metallocene can include a methylaluminoxane ~~methylaluminoxane~~ activator.

Please replace the first full paragraph beginning on page 18, line 1 of the application as filed with the following replacement paragraph:

R^5 and R^6 are identical or different, and are one of a hydrogen atom, a halogen atom, a C_1 - C_{10} alkyl group, which may be halogenated, a C_6 - C_{10} aryl group, which may be halogenated, a C_2 - C_{10} alkenyl group, a C_7 - C_{40} arylalkyl group, a C_7 - C_{40} alkylaryl group, a C_8 - C_{40} arylalkenyl group, a $[-NR_2^{15}] -NR'_2$, $[-SR^{15}] -SR'$, $[-OR^{15}] -OR'$, $[-OSiR_3^{15}] -OSiR'_3$ or $[-PR_2^{15}] -PR'_2$ radical, wherein: R^{15} R' is one of a halogen atom, a C_1 - C_{10} alkyl group, or a C_6 - C_{10} aryl group;

Please replace the second and third full paragraphs beginning on page 19, line 3 of the application as filed with the following replacement paragraphs:

R^{10} , R^{11} , R^{12} and R^{13} are identical or different and have the meanings stated for R^5 and R^6 ; wherein at least one of R^{13} and R^{10} are identical or different, and are one of a hydrogen atom, a halogen atom, a C_1 - C_{10} alkyl group, which may be halogenated, a C_6 - C_{10} aryl group, which may be halogenated, a C_2 - C_{10} alkenyl group, a C_7 - C_{40} arylalkyl group, a C_7 - C_{40} alkylaryl group, a C_8 - C_{40} arylalkenyl group, a $[-NR_2^{15}] -NR''_2$, $[-SR^{15}] -SR''$, $[-OR^{15}] -OR''$, $[-OSiR_3^{15}] -OSiR''_3$ or $[-PR_2^{15}] -PR''_2$ radical, wherein: $[R^{15}]$ R'' is one of a halogen atom, a C_1 - C_{10} alkyl group, or a C_6 - C_{10} aryl group; and

m and n are identical or different and are zero[,] or 1 or 2, m plus n is zero, 1 or 2.

U. S. Application No. 10/717,266
Attorney Docket No. 2002B171/2
Reply to Office Action of July 14, 2006
Amendment dated October 10, 2006

Please replace paragraph [0078] on page 21 of the application as filed with the following replacement paragraph:

[0078] In one or more of the polymer compositions described herein, the first diene monomer is 2-methyl-1,5-hexadiene or an α , internal non-conjugated diene monomer selected from the group consisting of 2-methyl-1,5-hexadiene and 7-methyl-1, 6-octadiene.

Please replace paragraph [0084] on page 22 of the application as filed with the following replacement paragraph:

[0084] The α , internal diene monomers may be linear, cyclic, and/or multicyclic, including fused and non-fused cyclic dienes. Preferably, the α , internal non-conjugated diene monomers are linear. Also, preferably, the α , internal non-conjugated diene monomers include α , internal non-conjugated dienes in which the internal double bond is a vinylidene group or a tri-substituted unsaturation site. Examples of preferred α , internal non-conjugated dienes include 2-methyl-1,5-hexadiene (which has a vinylidene group); 7-methyl-1,6-octadiene (which has a tri-substituted unsaturation site); dicyclopentadiene vinylbornene; ethylidene norbornene; 4-vinylcyclohexene; and 4-vinyl cyclopentene. Also available as a diene monomer in the present invention is 2-methyl-1,5 hexadiene (which has a vinylidene group).